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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

P15743

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

08/860466

INTERNATIONAL APPLICATION NO.

PCT/FR95/01760

INTERNATIONAL FILING DATE

29 December 1995

PRIORITY DATE CLAIMED

9 January 1995

TITLE OF INVENTION

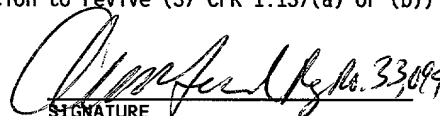
PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE THEREFOR

APPLICANT(S) FOR DO/EO/US

Gilles BASSON and Jean-Paul NOYERIE

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.
  2. ☐ This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.
  3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
  4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
  5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
    - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
    - b. ☒ has been transmitted by the International Bureau.
    - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
  6. ☒ A Translation of the International Application into English (35 U.S.C. 371 (c)(2)).  
"EXECUTED VERIFICATION"
  7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
    - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
    - b. ☐ have been transmitted by the International Bureau.
    - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
    - d. ☒ have not been made and will not be made.
  8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3))
  9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).  
"UNEXECUTED"
  10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).
- Items 11. to 16. below concern other document(s) or information included:
11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
  12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
  13. ☒ A FIRST preliminary amendment.  
☐ A SECOND or SUBSEQUENT preliminary amendment.
  14. ☐ A substitute specification.
  15. ☐ A change of power of attorney and/or address letter.
  16. ☒ Other items or information:
    - Cover Letter under 35 U.S.C. 371. and 37 C.F.R. 1.495.
    - PCT/IB/332 (in French).
    - PCT/ISA/210 International Search Report in (English and French).
    - PCT/IPEA/416 (in French).
    - PCT/IPEA/409 International Preliminary Examination Report (in French).
    - Claim of Priority.

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)				INTERNATIONAL APPLICATION NO. PCT/FR95/01760		ATTORNEY'S DOCKET NUMBER P15743			
17. <u>X</u> The following fees are submitted:  Basic National Fee (37 CFR 1.492(a)(1)-(5)):  Search report has been prepared by the EPO or JPO.....\$910.00  International preliminary examination fee paid to USPTO (37 CFR 1.482)....\$700.00  No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)).....\$720.00  Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....\$1,040.00  International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).....\$96.00  <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT = \$</div>						CALCULATIONS           		PTO USE ONLY           	
Surcharge of \$130.00 for furnishing the oath or declaration later than <u>  20  </u> <u>  30  </u> months from the earliest claimed priority date (37 CFR 1.492(e)).						\$ 0.00			
Claims	Number Filed	Number Extra	RATE	\$		0.00			
Total Claims	15 - 20 =	0	X \$22.00	\$		0.00			
Independent Claims	2 - 3 =	0	X \$80.00	\$		0.00			
Multiple dependent claim(s) (if applicable)			+ \$260.00	\$		0.00			
TOTAL OF ABOVE CALCULATIONS = \$						910.00			
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28)						\$ - 0.00			
SUBTOTAL =						910.00			
Processing fee of \$130.00 for furnishing the English translation later than <u>  20  </u> <u>  30  </u> months from the earliest claimed priority date (37 CFR 1.492(f)).						+ 0.00			
Extension of Time fee in the amount of \$						+ 0.00			
TOTAL NATIONAL FEE =						910.00			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property						+ 0.00			
TOTAL FEES ENCLOSED =						910.00			
						Amount to be refunded \$ 0.00			
						charged \$ 0.00			
a. <u>X</u> A check in the amount of <u>\$910.00</u> to cover the above fees is enclosed.  b. <u>  </u> Please charge my Deposit Account No. <u>                    </u> in the amount of \$ <u>      </u> to cover the above fees. A duplicate copy of this sheet is enclosed.  c. <u>X</u> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>19-0089</u> . A duplicate copy of this sheet is enclosed.  NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.  SEND ALL CORRESPONDENCE TO:  Neil F. Greenblum GREENBLUM & BERNSTEIN, P.L.C. 1941 Roland Clarke Place Reston, VA 20191 (703) 716-1191									
						 SIGNATURE			
						Neil F. Greenblum NAME			
						28,394 REGISTRATION NUMBER			

08/860466  
18 304 P01 08 JUL 1997

P15743.P02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :G. BASSON et al.

Serial No :Not Yet Assigned

Filed :Concurrently Herewith

For :PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE  
THEREFOR

**PRELIMINARY AMENDMENT**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

Prior to the examination of the above-identified patent application, the Examiner is respectfully requested to amend the claims as follows:

IN THE CLAIMS

Please amend the claims as follows:

In claim 7, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 8, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 9, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 10, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 11, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 12, line 2, please change "any of the preceding claims" to ---claim 1---.

In claim 13, line 1, please change "any of the preceding claims"

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to ---claim 1---.

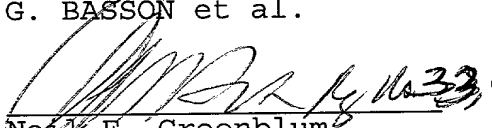
In claim 14, line 1, please change "any of the preceding claims"  
to ---claim 1---.

In claim 15, line 1, please change "any of the preceding claims"  
to ---claim 1---.

REMARKS

The Examiner is respectfully requested to enter the  
foregoing amendment prior to examination and calculation of the  
filing fees in the above-identified patent application.  
Should there be any questions, the Examiner is invited to contact  
the undersigned at the below listed number.

Respectfully submitted,  
G. BASSON et al.

  
Neil F. Greenblum  
Reg. No. 28,394

July 8, 1997  
GREENBLUM & BERNSTEIN, P.L.C.  
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**PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE**  
**THEREFOR**

5 The present invention relates to a protective helmet, and more specifically to the device for attaching its chin strap.

Protective helmets have been customarily used for a long time in various fields, either professionally, as is the case for the military, police or firemen, or in private, as is the case for motorcyclists, rally or race car drivers.

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Protective helmets are already known which are used in various fields and are worn by diverse users, such as cyclists, motorcyclists, firemen, skiers and others, such as aircraft and helicopter pilots. All of the current helmets, irrespective of their use, include a generally sphere-shaped rigid outer shell including a facial opening, and whose cavity thus formed includes protective and comfort padding elements adapted to nest the user's head. Furthermore, the helmet is conventionally maintained on the user's head by means of a flexible chin strap attached to the lateral portions of the helmet. The current devices for linking the chin strap are totally unsatisfactory, because inefficient, often unreliable, and are very anaesthetic; and removing or putting on the helmet is often quite difficult, and the chin strap is sometime unfastened at the wrong moment, the helmet then failing to perform its protective function properly.

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The object of the present invention is to remedy these drawbacks by proposing a new chin strap connecting device which enables a particularly simple and rapid positioning and disconnection for the user, while ensuring a reliable and certain retention of the chin strap.

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Thus, according to the invention, the device for attaching a chin strap to a protective helmet is of the type enabling a removable connection, and is characterized in that the chin strap fastening means are constituted by the cooperation of a fastening member affixed to the chin strap and engageable with a fastening lug affixed to the helmet wall.

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According to a complementary characteristic of the invention, the fastening member

is constituted by a cylindrical portion affixed to a pivotable gripping lever, whereas the fastening lug is constituted by a matching recessed portion.

According to another arrangement, latching means are provided for latching the gripping lever to the helmet, and especially to its lateral wall, in a disconnectable manner.

According to an embodiment, the gripping lever is pivotally mounted on a retaining part to which the chin strap is attached. Let's also note that the recessed portion constituting the fastening lug is open upwardly and closed at its ends by two end walls, and is limited outwardly by an outer projecting portion serving as a retaining and fastening edge, and toward the helmet wall by a rear wall, whereas the retaining edge is, in its central portion, interrupted by a central cutout adapted for the passage of the retaining end of the retaining part of the fastening member.

According to a preferred embodiment of the invention, the fastening lug is affixed to an independent edge part fixed on one of the lateral wall portions, and advantageously in the vicinity of the lateral edge of said lateral wall portion.

Of course, the invention also relates to the helmet equipped with the device. Furthermore, it must be noted that each of its lateral wall portions advantageously includes the device, which enables a total disconnection of the chin strap; but it could be otherwise, and the helmet could, for example, have only one removable connecting device arranged on only one side, while the chin strap would be irremovably fixed on the other side of the helmet.

Other characteristics and advantages of the invention will become apparent from the description that follows, with reference to the annexed drawings which are only provided by way of non-limiting examples.

Figure 1 is an external lateral view of a helmet according to the invention, with its chin strap;

Figure 2 is a perspective view of the helmet with its chin strap;

Figures 3, 4, 5, and 6 more particularly show the fastening lug affixed to the helmet;

5 Figure 3 is a partial front view;

Figure 4 is a view along f4 of Figure 3;

10 Figure 5 is a cross sectional view along V-V of Figure 3;

Figure 6 is a cross sectional view along VI-VI of Figure 3;

Figures 7 and 8 show the end of the chin strap, with its fastening means, and in particular its fastening member adapted to cooperate with the fastening lug;

15 Figure 7 is a planar view, whereas Figure 8 is a lateral view along f8;

Figures 9 and 10 illustrate how the disconnectable removable connection occurs between the chin strap and the helmet;

20 Figure 9 is a planar view, whereas Figure 10a is a partial cross sectional view along X-X, Figure 10b being a cross section along A-A;

Figures 11, 12, and 13 illustrate how the fastening of the chin strap occurs;

25 Figure 14 is an exploded perspective view of the helmet without the chin strap, the edge parts having been removed;

Figure 15 is a top view of the helmet with its chin strap;

30 Figures 16, 17 and 18 illustrate three ways of disconnecting the chin strap;

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Figures 19 and 20 are cross sectional views along B-B and C-C, respectively, of Figure 1, more particularly showing how the extension of the edge part is configured;

Figure 21 shows an alternative embodiment in a lateral view;

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Figures 22 and 23 are views similar to Figures 12 and 13 illustrating an alternative embodiment of the latching of the device;

Figure 24 is a view similar to Figure 21 showing another variation.

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The protective helmet shown by way of example in Figures 1-18, generally designated by the reference (1) is especially a helmet for an aircraft pilot, which has a longitudinal general plane of symmetry (P) which includes, in a known manner, a main outer shell (2) having a front facial opening (3) with an internal padding commonly referred to as the upper part (4).

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The main outer shell (2) is constituted by a substantially spherical wall (5) with a generally vertical plane of symmetry (P) that is advantageously made of a composite material of the type including a stacking of layers of reinforcing fibers impregnated and connected to one another by a resin matrix. The fibers can be glass, aramid, Nylon, polyethylene or carbon fibers, while the matrix can be a thermohardening or thermoplastic type of resin.

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The main outer shell (2) includes a plurality of wall portions, namely, an upper front wall portion (6) extended rearwardly by an upper rear wall portion (7), which is itself extended downwardly by a lower rear wall portion (8), and further includes two lateral wall portions (9). The upper front wall portion (6) corresponds to the zone occupied by the forehead of the user and is limited by the upper edge (10) of the facial opening (3) which, in turn, is limited laterally by two lateral edges (11). The upper rear wall portion (7) corresponds to the zone occupied by the skull of the user, whereas the lower rear wall portion (8) corresponds to the zone occupied by the nape of the user. In addition, the wall (5) of the upper part is limited downwardly by a lower edge (12) extending in a general

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plane (Q) inclined with respect to the horizontal plane (H) to extend toward the rear (AR) and toward the top (HA). The lateral wall portions (9) correspond to the zones occupied by the ears of the user and are limited forwardly by the corresponding lateral edge (11) of the facial opening (3) and downwardly by the front ends of the lower edge (12). The connection  
5 between the lateral edges (11) and the lower edge occurs along an advantageously curved connecting edge (13).

The helmet of the invention includes a chin strap (14) removably held at the lateral wall portions (9) of the shell (2) of the helmet (1), and more particularly at the connecting  
10 edge (13) of each of said lateral wall portions (9).

The chin strap (14) is constituted by a flexible strap (15) bearing a fastening member (17) at its two ends (16). According to an arrangement of the invention, each of the fastening members (17) is pivotally arranged on a retaining part (18) by means of a  
15 transverse pin (19). The retaining part (18) is a substantially flat part including one retaining end (180) carrying the swivel pin (19) of the fastening member (17) and one enlarged end (181) including the retaining and adjusting means for the strap (15), which are constituted by two transverse cutouts (182, 183) separated by a crosspiece (184), said two transverse cutouts enabling the passage of the strap, as is known in itself.

20 The fastening member (17) includes a cylindrical portion (20) affixed to a gripping lever (21). The cylindrical portion (20) is interrupted in its central portion by a central cutout (22) adapted to receive the retaining end (180) of the corresponding retaining part (18).

25 The fastening member (17) of the chin strap (14) is adapted to cooperate with a fastening lug (30) affixed to the helmet (1), and more particularly to its main outer shell (2), and especially to its wall (5). According to an advantageous arrangement of the invention, the fastening lug (30) is arranged externally to the lateral wall portion (9) of the helmet wall  
30 (5) and in the vicinity of the wall edge (13). Let's note that the chin strap (14) is removable and can advantageously be totally or partially disconnected from the helmet itself, as we will see hereinafter. To this end, the chin strap attachment device is symmetrical, and each of

the lateral wall portions (9) therefore includes a fastening lug.

Said fastening lug (30) is constituted by a recessed portion (31) adapted to cooperate with the cylindrical portion (20) of the corresponding fastening member (17). This recessed portion advantageously has a shape that is complementary to the contour of the fastening member. Thus, this recessed portion (31) is substantially cylindrical to extend along an (XX') axis parallel to the edge (13). The (XX') axis is inclined to extend toward the top (HA) and toward the front (AV) to form, with the horizontal (H), a forwardly open angle (A) having a value comprised between 30 and 60° and, for example, 40°.

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Of course, the recessed portion (31) is open upwardly and advantageously closed at its ends by two end walls (32, 33), and is limited outwardly by a projecting outer portion (34) serving as a retaining and fastening edge, and toward the helmet wall by a rear wall (35). The retaining edge (34) is, in its central portion, interrupted by a central cutout (36) adapted to the passage of the retaining end (180) of the retaining part (18) of the fastening member (17). Let's note that the fastening lug (3) is arranged on the lateral wall portion (9) and advantageously in the vicinity of the lateral edge (11), and more particularly of the connecting edge (13).

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According to a characteristic of the invention, disconnectable latching means are provided between the helmet and the fastening member, which means make it possible to ensure a particularly reliable fastening of the chin strap to the helmet, thus avoiding any ill-timed detachment, but which of course allow a particularly simple voluntary detachment. Thus, the fastening means are, for example, constituted by a clipping type of device or any other device. Therefore, as illustrated, one can provide a "snap fastener" type of device (37) of which one (38) of the elements is affixed to the lever (21) of the fastening member (17), whereas the other element (39) is affixed to the helmet or to the rear wall (35) of the recessed portion (31) of the fastening lug (30).

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According to the invention, the fastening lug (30) for the fastening member of the chin strap (14) is affixed to an independent edge part (40) fixed to the helmet wall. This part (40) has the shape of a curved gutter and is, for example, made of an injected plastic

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material fixed to the lateral edge of the helmet by any means, such as screws (41), for example, and therefore includes the fastening lug (30, 31) with its end walls (32, 33) and its longitudinal walls (34, 35). Let's note that the edge part (40) not only has the technical functions mentioned previously, but also contributes to the aesthetic aspect of the helmet.

5 Thus, the gutter (40) constituting the edge part extends not only in the zone of the fastening lug (30), but beyond, toward the connecting edge (13) to extend toward the lower edge (13) through a rear extension (401) to cover a portion of this lower edge, and toward the top through an extension (402) to cover the lateral edge (11).

10 Furthermore, the edge part (40) can be adapted to retain a respiratory mask, as is illustrated in Figure 21. To this end, said edge part can include a retaining member (41) on which the end (42) of the retaining arm (43) of a respiratory mask (44) can be fixed. Furthermore, said edge portion (40) could also retain any element other than a respiratory mask, such as a microphone (440), for example, as is shown in Figure 24.

15 It is understood that the helmet according to the invention can comprise one or more pivotable protective facial screens, as illustrated, for example, and bearing the reference (50).

20 Figures 11 and 13 illustrate how the fastening of the chin strap is carried out. To do this, the cylindrical portion (20) of the fastening member (17) is first positioned in the corresponding recessed portion (30) constituting the fastening lug of the helmet (Figures 11 and 12). In order to latch the fastening, the user only has to cause the gripping lever (21) to pivot toward the helmet wall along V, Figure 14, to latch said lever by means of the latching means (37) so as to place the attachment device in the position illustrated in Figures 13, 9,

25 10, 1 and 2. In this position, the retention of the chin strap is particularly reliable while enabling a particularly simple disconnection for the user who only has to proceed in reverse by first causing the lever (21) to pivot outwardly, in order to be able to release the nesting made by the lug (30).

30 According to a preferred arrangement, the helmet is asymmetrical and includes attachment means for its chin strap on each side, which allows for the total disconnection of the chin strap, as is illustrated in Figure 15, or for only a partial disconnection, and

especially on only one side, right or left, as shown in Figures 16 and 17, respectively.

Let's note that the lateral wall portions (9) advantageously include projections (90) which internally form recesses adapted to receive the ears of the user, so that the remainder of the wall is closer to the lug of the latter. The overall width (L1) of the shell (2) of the helmet is therefore greater than the width (L2) between the two lateral edges (11) of the facial opening, as well as that between the two connecting edges (13). Because the fastening lugs (30) are arranged in the vicinity of the connecting edges (13), the width (L3) between such edges is less than the overall width (L1) of the outer shell (2). The chin strap fastening means therefore fit within the lateral space requirement of the helmet and are therefore protected, which prevents any undesired hooking of the lever (17) and therefore blocks any ill-timed release of the chin strap.

It is also advisable to note that the pivoting of the chin strap (14), as illustrated by the double arrow R in Figure 1, is prevented by the fact that the retaining end (180) of the retaining part (18) is engaged in the central cutout (36) made in the retaining edge (34), as can be seen more particularly in Figures 1, 9, 10a and 10b.

Let's note also that the swivel pin (19) of the latching member (17) is preferably arranged in the zone of the fastening lug, such that its (YY') axis is positioned coaxially to the (XX') axis of said housing, i.e., beneath this latter (XX').

One will therefore note that the (YY') axis is advantageously arranged behind the retaining edge (34) of the fastening lug. Thus, even if the fastening member (17) is unlatched, an ill-timed detachment, due to the traction that might be exerted on the chin strap, cannot occur.

It is understood that any other embodiment can be considered, such as that illustrated schematically in Figures 22 and 23, for example. According to this one, the fastening lug is not constituted by an independent part fixed to the helmet wall, but is integral with the wall, so as to be injected with the latter, for example. Furthermore, the latching of the gripping lever (21) could be carried out through the elastic deformation of the constituent

material of the parts, and especially the lever (21) which includes a deformable projection (380).

Let's add that the surface of the part or edge (40) in cooperation with the wall of the shell is substantial, which makes it possible to make a connection with glue; of course, this improves the resistance by reducing the risks of tear of the fabric of the wall. Indeed, use of a rivet or a screw would require bores which would create zones running risks of rupture. Therefore, due to a glue connection, a better distribution of the forces on the shell has been made possible, and it has therefore been made possible to make a shell with less fabric, while still offering the same safety quality.

Of course, the invention is not limited to the embodiments described and shown by way of examples, but it also includes all the technical equivalents as well as their combinations.

## CLAIMS

1. Device for attaching a chin strap (14) to a protective helmet (1) including a main outer shell (2) of the type including removable and disconnectable fastening means for its chin strap (14), constituted by the cooperation of a fastening member (17) affixed to the chin strap (14) and engageable with a fastening lug (30) affixed to the helmet wall (2), characterized in that the fastening member (17) is constituted by a fastening portion (20) affixed to a pivotable gripping lever (21), whereas the fastening lug (30) is constituted by a matching recessed portion (31).
2. Device for attaching a chin strap (14) to a protective helmet (1) according to claim 1, characterized in that the gripping lever (21) with the fastening member (17) is mounted and journalled on a retaining part (18) on which the strap (15) of the chin strap (14) is retained about an axis (19, YY').
3. Device for attaching a chin strap (14) to a protective helmet (1) according to claim 1, characterized in that the recessed portion (31) constituting the fastening lug (30) is open upwardly and is limited outwardly by an outer projecting portion (34) serving a retaining and fastening edge.
4. Device for attaching a chin strap (14) to a protective helmet (1) according to claim 3, characterized in that the (YY', 19) axis is arranged behind the retaining edge (34) of the fastening lug.
5. Device for attaching a chin strap (14) to a protective helmet (1) according to claim 4, characterized in that the fastening member (17) is a cylindrical portion having a (YY') axis, whereas the fastening lug is constituted by a matching cylindrical recessed portion having a (XX') axis.
6. Device for attaching a chin strap (14) to a protective helmet (1) according to claim 5, characterized in that the (YY') axis of the fastening cylindrical portion is substantially coaxial to the swivel pin (19) and to the (XX') axis of the recessed portion (31).

7. Device for attaching a chin strap (14) to a protective helmet (1) according to any of the preceding claims, characterized in that the retaining edge (34) is, in its central portion, interrupted by a central cutout (36) adapted to the passage of the retaining end (180) of the retaining part (18) of the fastening member (17).

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8. Device for attaching a chin strap (14) to a protective helmet (1) according to any of the preceding claims, characterized in that latching means (37) are provided for latching the gripping lever (21) to the helmet (1), and especially to its wall (2), in a disconnectable manner.

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9. Device for attaching a chin strap (14) to a protective helmet (1) according to any of the preceding claims, characterized in that the recessed portion (31) constituting the fastening lug (30) is closed at its ends by two end walls (32, 33).

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10. Device for attaching a chin strap (14) to a protective helmet (1) according to any of the preceding claims, characterized in that the recessed portion (31) constituting the fastening lug (30) is limited toward the helmet wall by a rear wall (35) including the latching means (37) of the lever.

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11. Device for attaching a chin strap (14) to a protective helmet (1) according to any of the preceding claims, characterized in that the fastening lug (30) is affixed to an independent edge part (40) fixed to the wall (2) of the helmet (1).

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12. Protective helmet (1) including at least one attachment device according to any of the preceding claims, said helmet including a main outer shell (2) having two lateral wall portions (9), characterized in that the fastening lug (30) of the chin strap attachment device is arranged on one of the lateral wall portions (9).

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13. Protective helmet (1) according to any of the preceding claims, characterized in that the fastening lug (30) is in the vicinity of the lateral edge (11, 13) of the lateral wall portion (9).

14. Protective helmet (1) according to any of the preceding claims, characterized in that the fastening lug (30) is constituted by an independent edge part (40) fixed to the helmet edge.

15. Protective helmet (1) according to any of the preceding claims,  
characterized in that it includes an attachment device for the chin strap on each side.







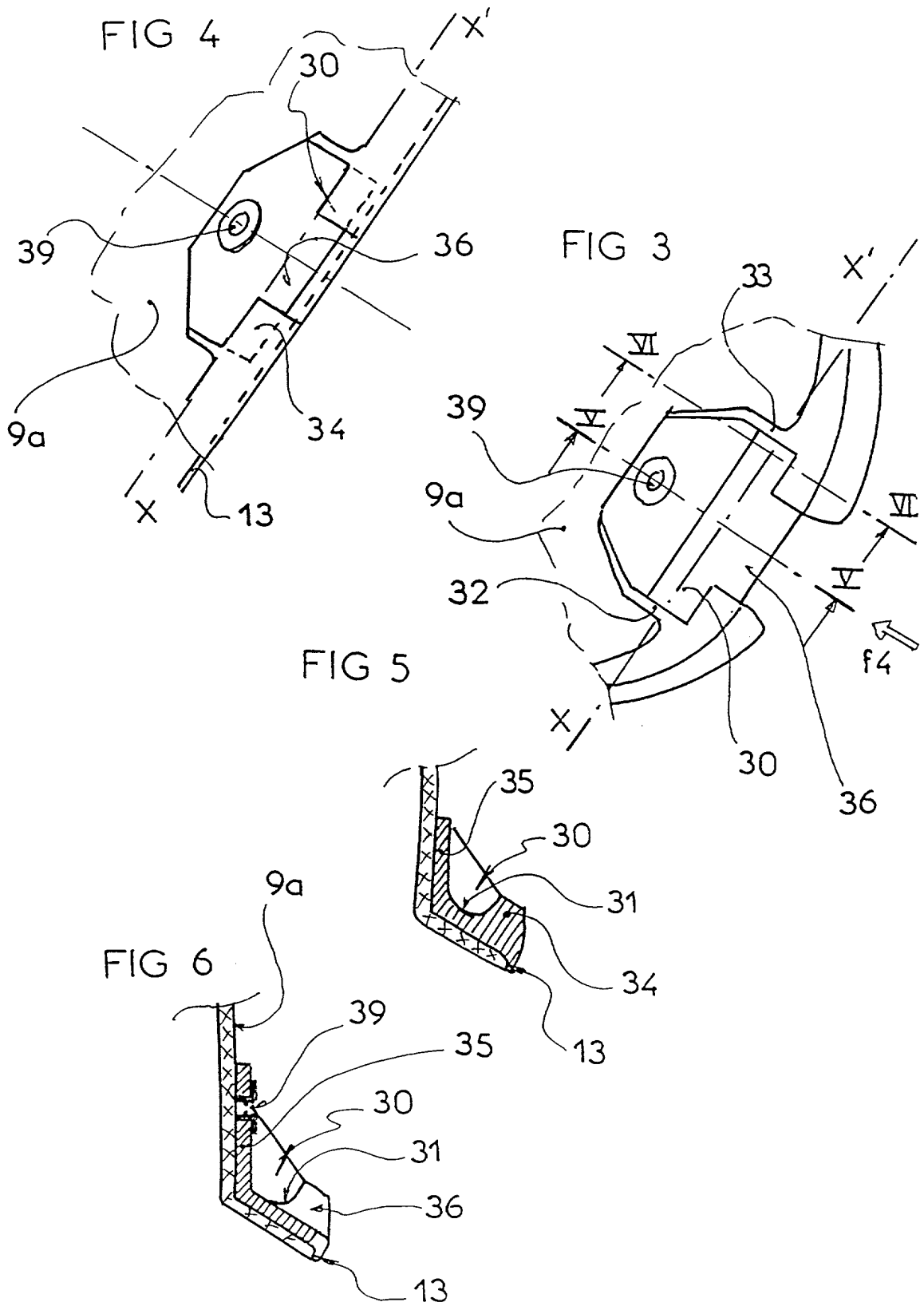


FIG 7

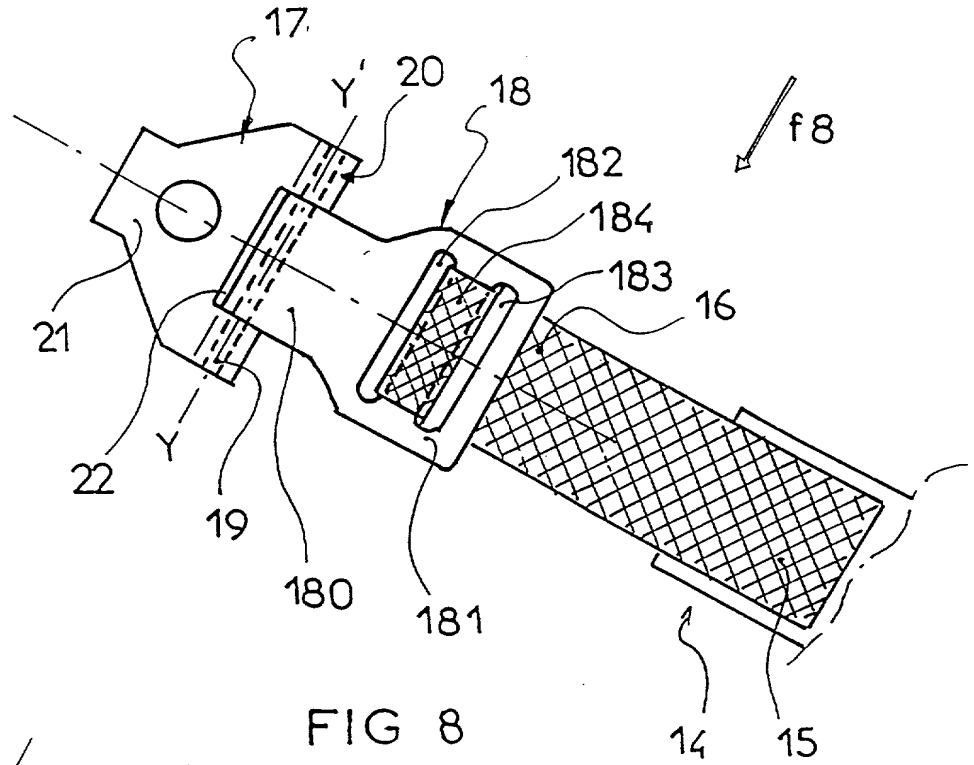


FIG 8

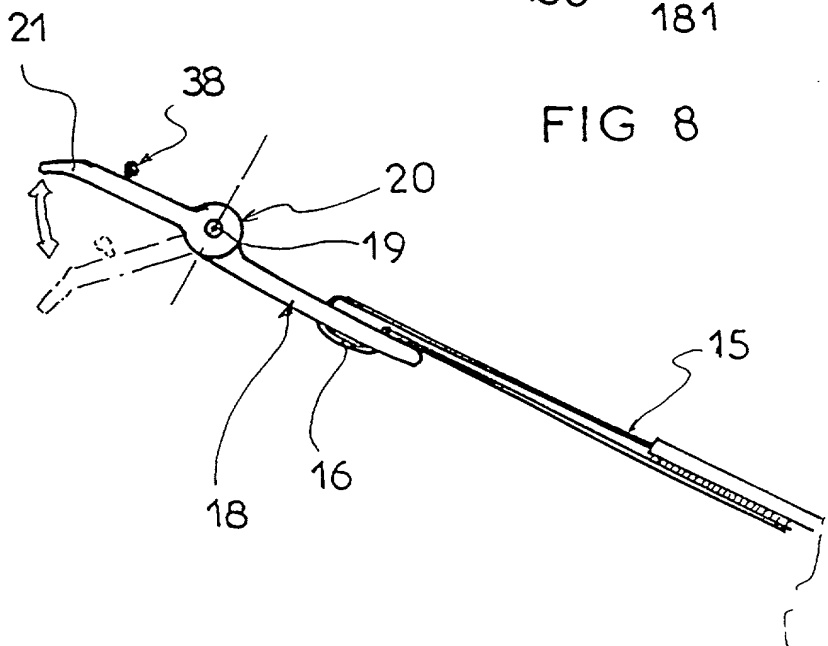


FIG 9

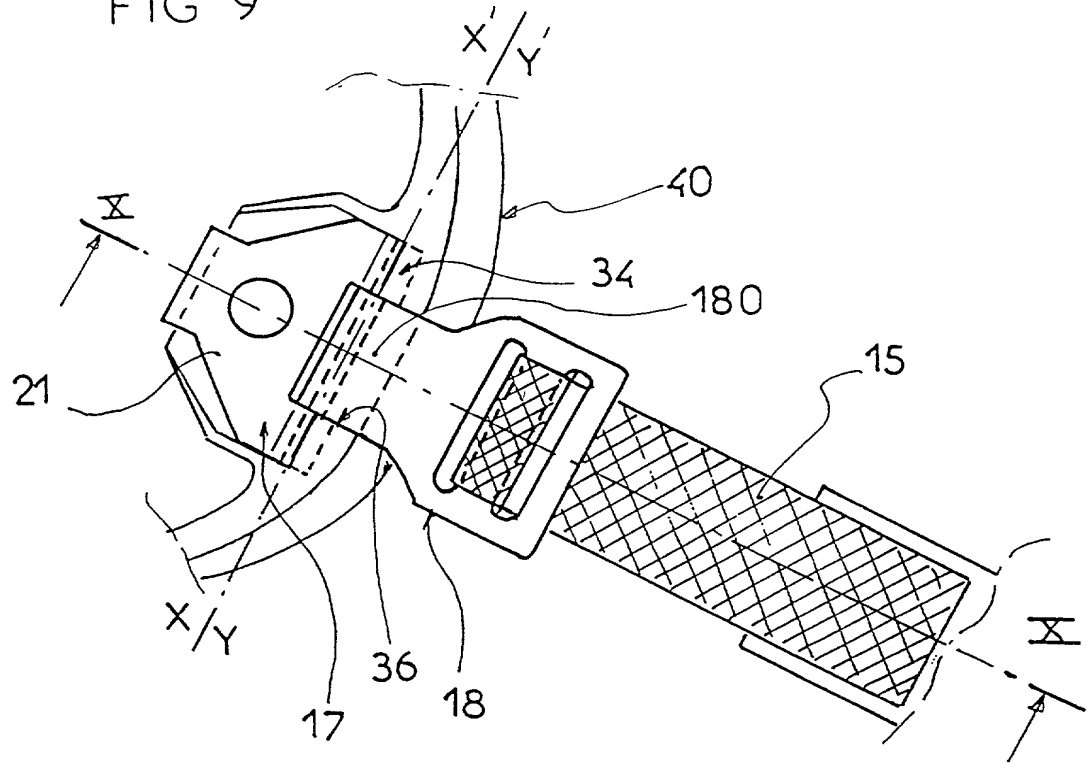


FIG 10a

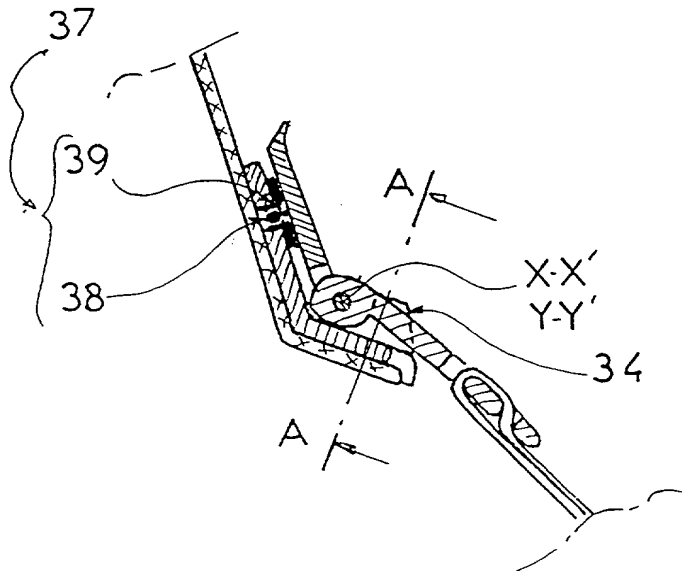


FIG 10b

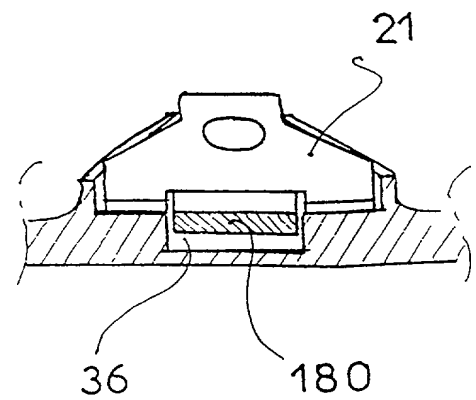


FIG 11

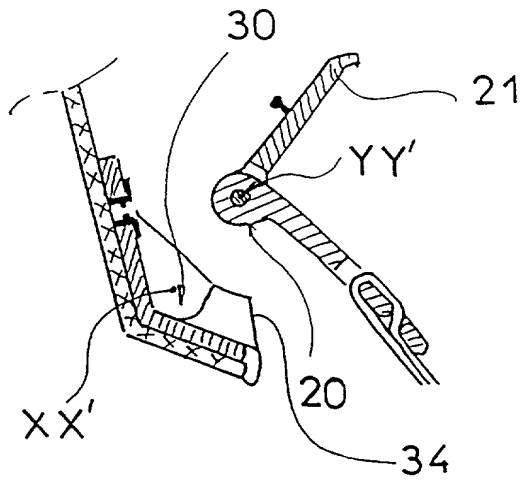


FIG 12

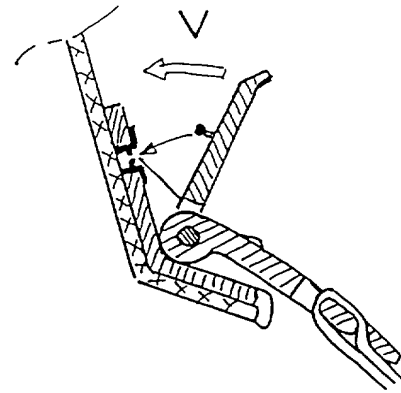


FIG 13

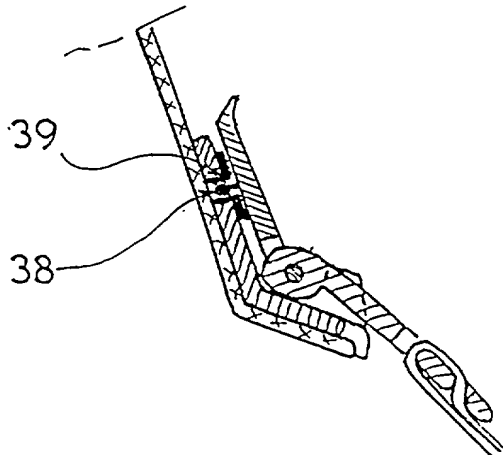


FIG 19

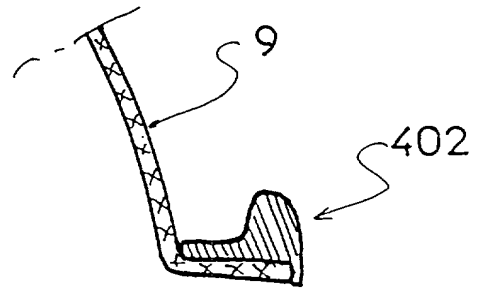


FIG 20

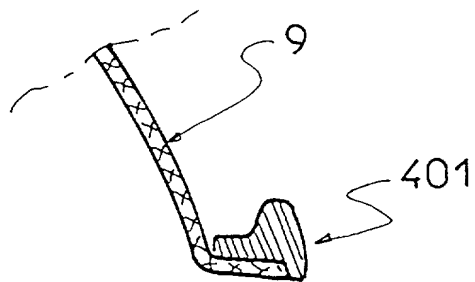


FIG 14

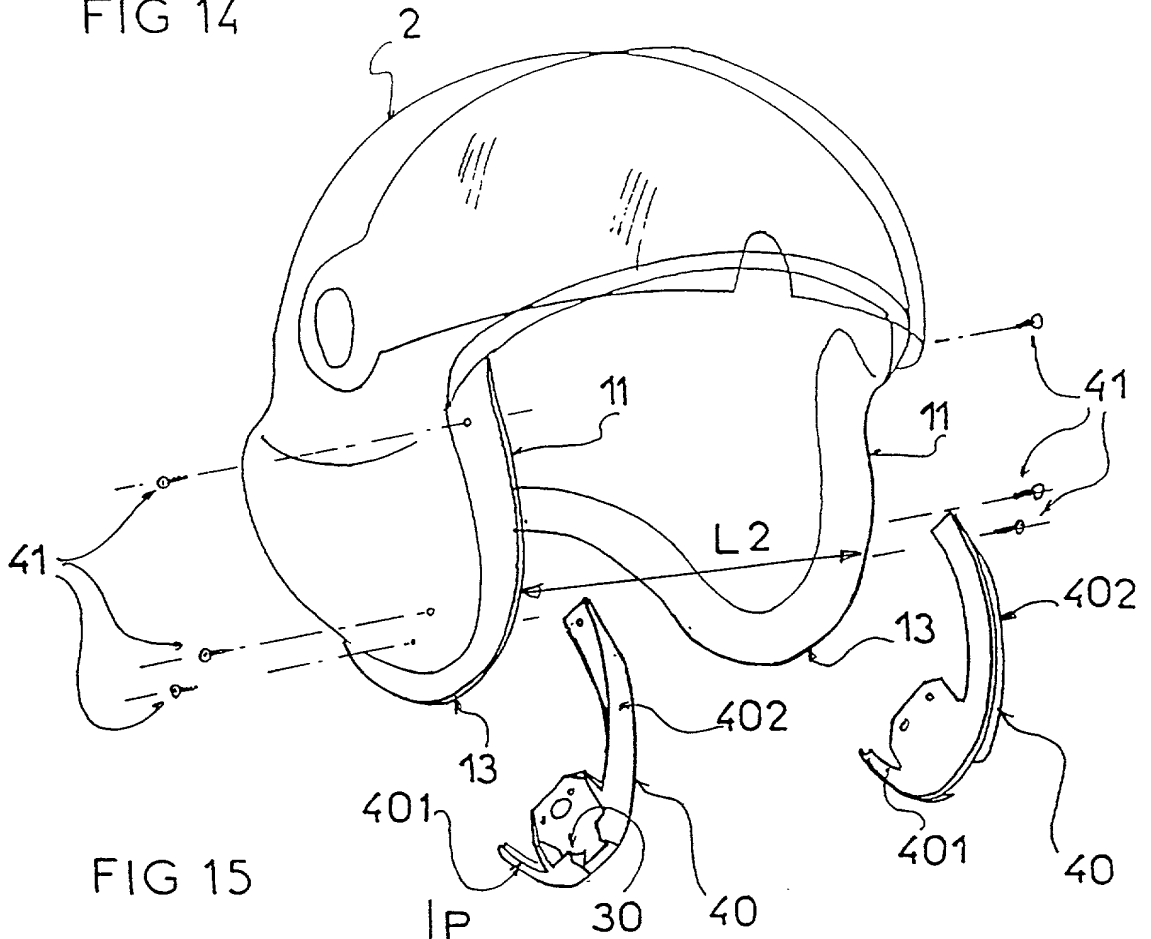


FIG 15

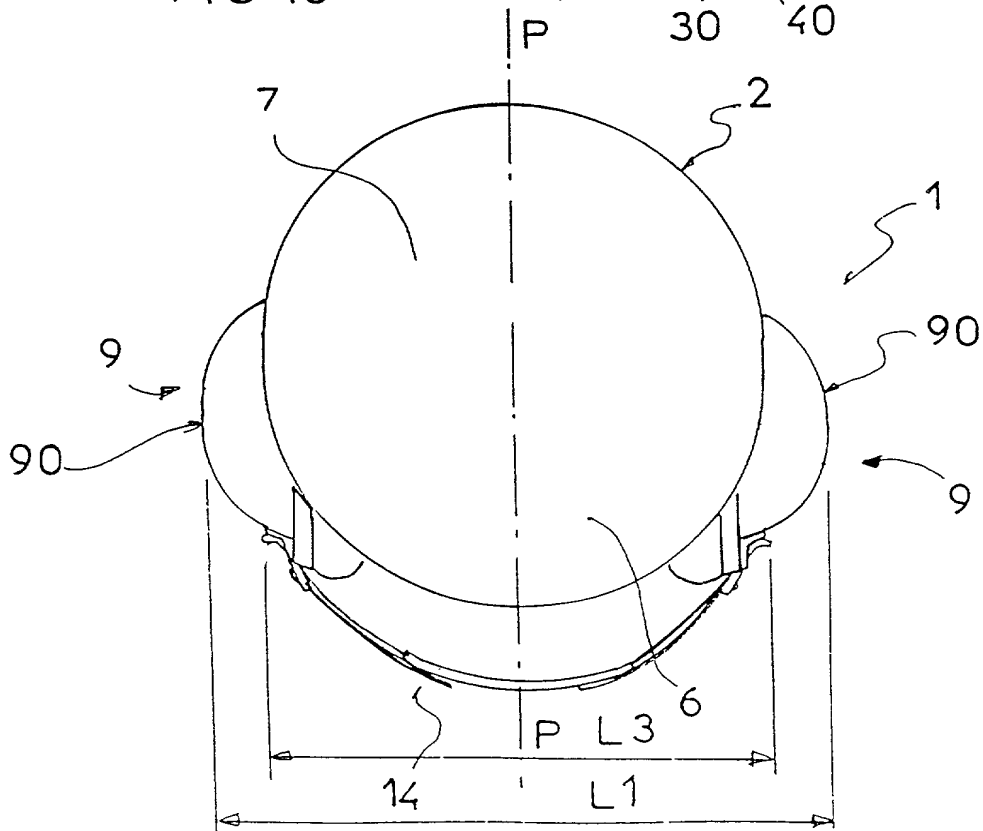


FIG 16

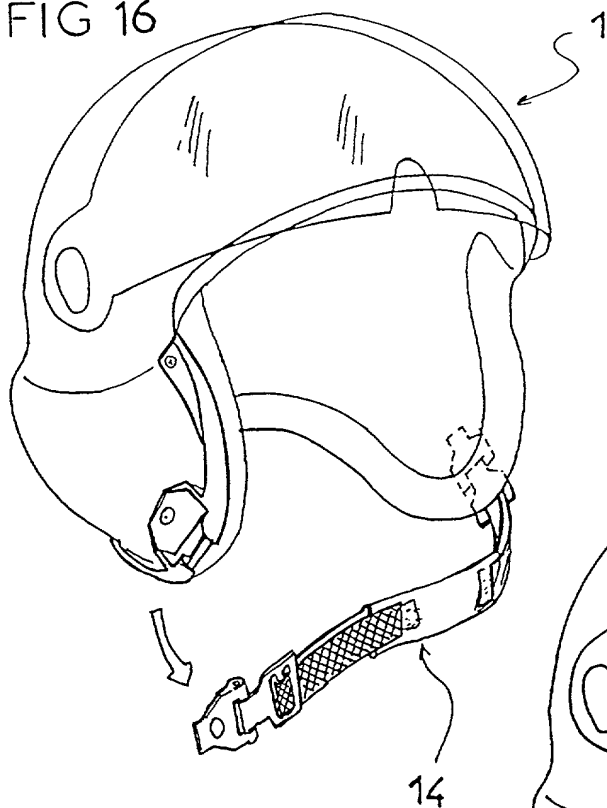


FIG 17

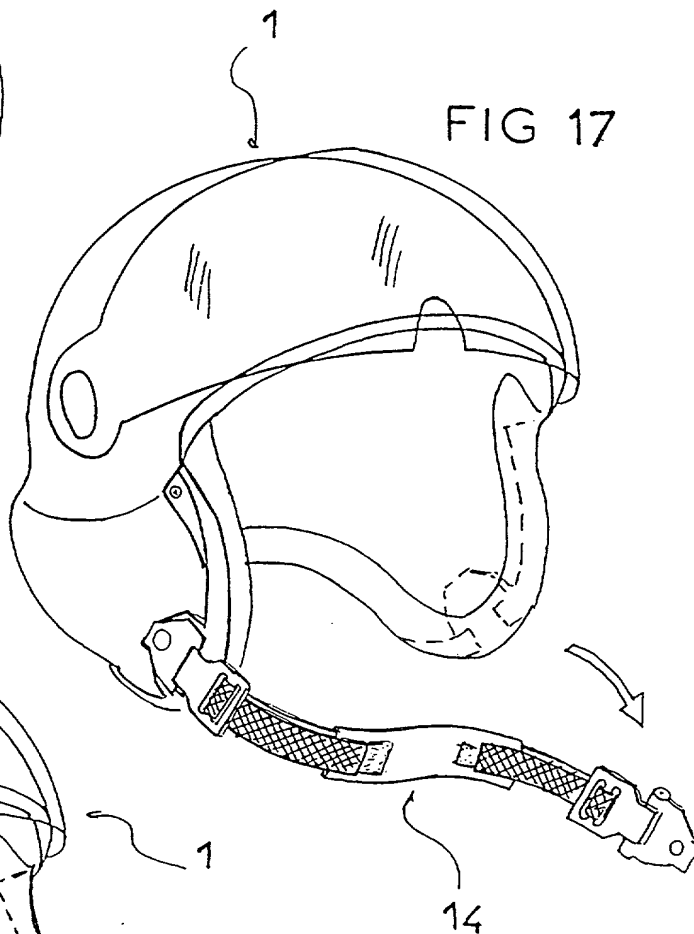


FIG 18

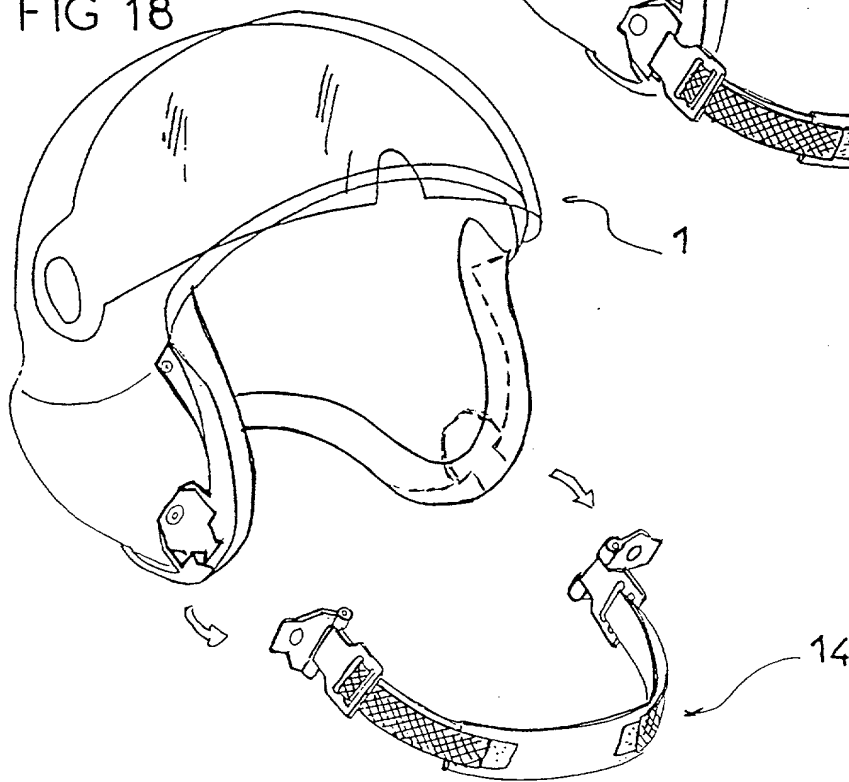




FIG 21

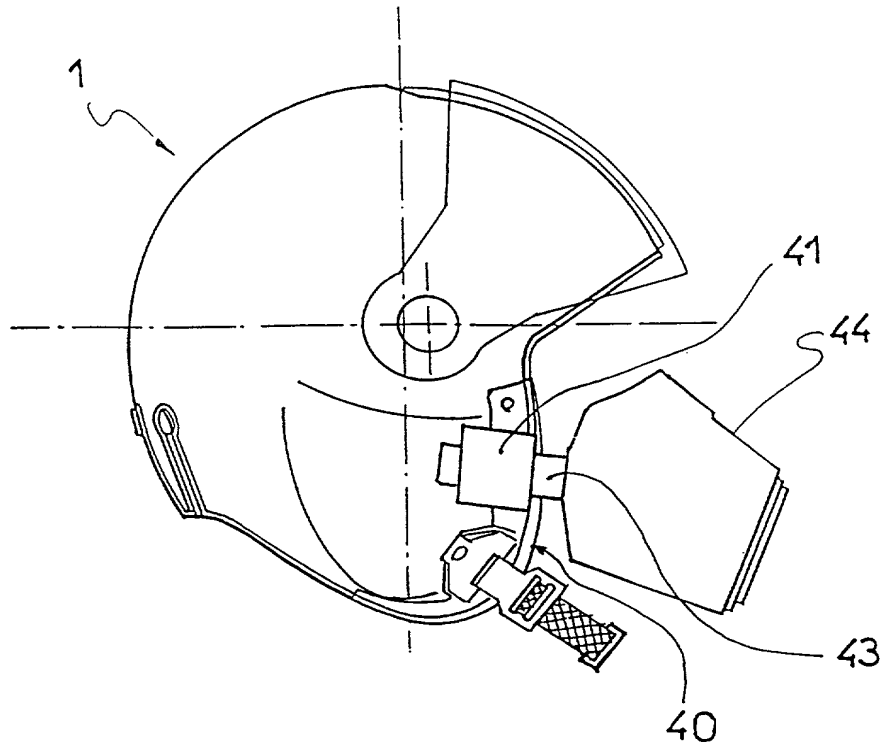


FIG 22

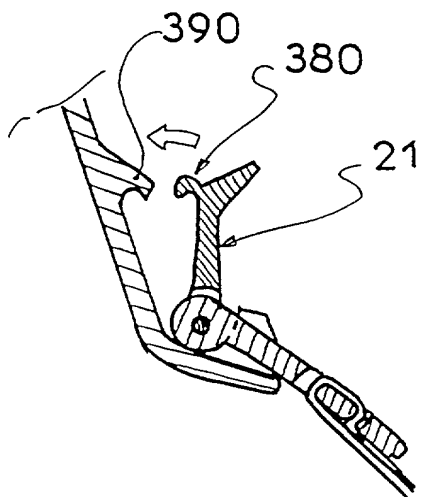


FIG 23

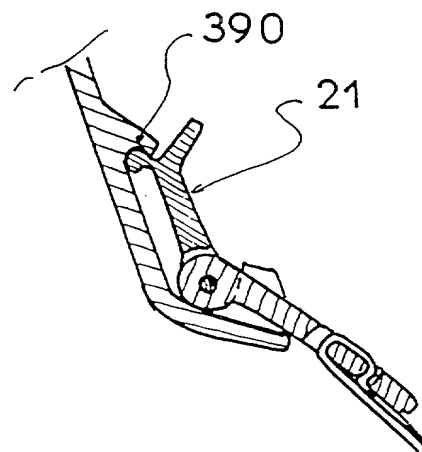
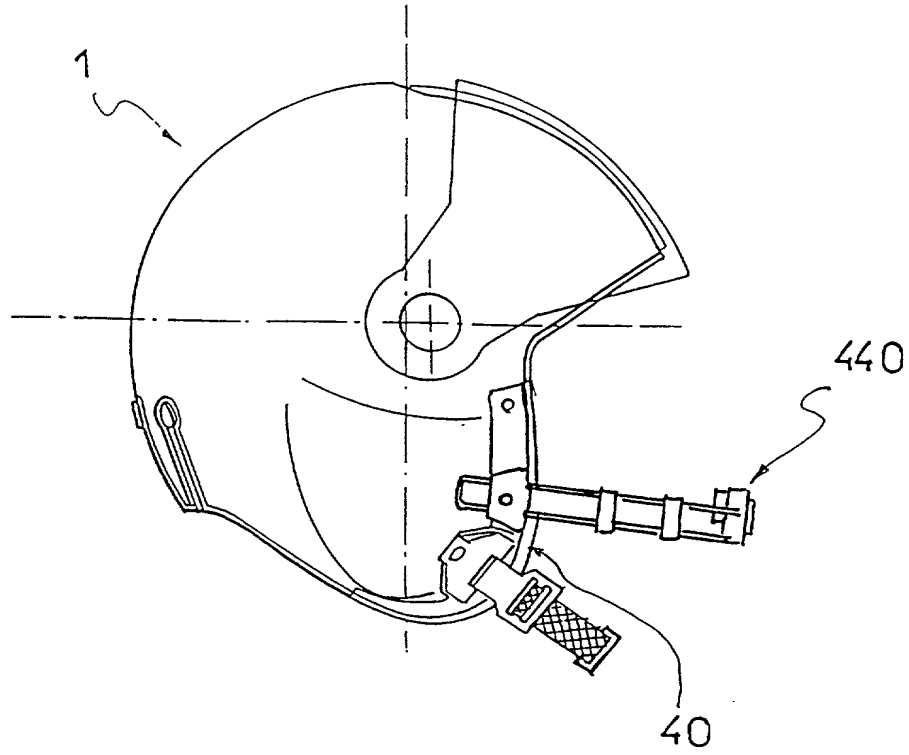


FIG 24



COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY  
(Includes Reference to PCT International Applications)Attorney's Docket Number  
P15743

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE THEREFOR

the specification of which (check only one item below):

☐ is attached hereto.☐ was filed as United States applications

Serial No. \_\_\_\_\_

on \_\_\_\_\_

and was amended

on \_\_\_\_\_ (if applicable).

☒ was filed as PCT international applicationNumber PCT/FR95/01760on December 29, 1995

and was amended under PCT Article 19

on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

## PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
France	95/00339	9 January 1995	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

**Combined Declaration For Patent Application and Power of Attorney (Continued)**ATTORNEY'S DOCKET NUMBER  
P15743

(Includes Reference to PCT International Applications)

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

**PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:**

U.S. APPLICATIONS			STATUS (Check One)		
U.S. APPLICATION NUMBER	U.S. FILING DATE		PATENT	PENDING	ABANDONED
<b>PCT APPLICATIONS DESIGNATING THE U.S.</b>					
PCT APPLICATION NO.	PCT FILING DATE	U.S. SERIAL NUMBER ASSIGNED (IF ANY)			

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from either his foreign patent agent or corporate representative, if any, as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the attorney(s) and/or agent(s) associated with the Customer Number provided below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number:

CUSTOMER NUMBER 7055

The appointed attorneys presently include:

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Bruce H. Bernstein, Reg. No. 29,022

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201	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY
		BASSON	Gilles	
		Châillon-sur-Chalonne	France FRX	France
		Grande-Beyvière	Châillon-sur-Chalonne	F-01400 France
202	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY
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		Abergement Clemenciais	France FRX	France
		Maux	Abergement Clemenciais	F-01400 France
203	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201

SIGNATURE OF INVENTOR 202

SIGNATURE OF INVENTOR 203




DATE

DATE

DATE

201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000

200

X

2

**GREENBLUM & BERNSTEIN, P.L.C.**  
**PATENT AND TRADEMARK CAUSES**  
 1941 ROLAND CLARKE PLACE  
 RESTON, VIRGINIA 20191

Applicant or Patented: Gillet Basson et al.Serial or Patent No.: Not yet assignedAttorney's Docket No.: P15743Filed or Issued: Concurrently herewithIn: PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE THEREFOR

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
 STATUS (37 CFR 1.9 (f) and 1.27(e)) - SMALL BUSINESS CONCERN**

I hereby declare that I am

☐ the owner of the small business concern identified below;  
☐ an official of the small business concern empowered to act on behalf of the concern identified below;  
 NAME OF SMALL BUSINESS CONCERN Gillet SA  
 ADDRESS OF SMALL BUSINESS CONCERN Zone Industrielle Sud- F-01400 Châtillon-sur-Chalaronne

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12 and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees to the United States Patent and Trademark Office, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, titled PROTECTIVE HELMET AND CHIN STRAP ATTACHMENT DEVICE THEREFOR, by inventor(s) Gillet Basson et al. described in

☒ the specification filed herewith  
☐ application serial no. \_\_\_\_\_ filed \_\_\_\_\_  
☐ patent no. \_\_\_\_\_ issued \_\_\_\_\_

The rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(3) \*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME GILLET SA FRANCE  
 ADDRESS ZI SUD 01400 CHATILLON SUR CHALARONNE  
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28 (b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING Jean-Claude CARRERE  
 TITLE OF PERSON IF OTHER THAN OWNER Directeur  
 ADDRESS OF PERSON SIGNING Z.I. SUD - 01400 CHATILLON SUR CHALARONNE

SIGNATURE [Signature] DATE 9th July 1997 GILLET SA

Capital de 20.042.400 F

ZI. SUD - B.P. 90

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